REMARKS/ARGUMENTS

Status Of Application

Claims 1-41 are pending in the application; the status of the claims is as follows:

Claims 1-4, 13-17, 19-21, 30 and 31 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,607,332 to Goldberg ("Goldberg").

Claims 5, 6, 18, 22-24 and 32-36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Goldberg in view of U.S. Patent No. 5,450,589 to Maebayashi et al. ("Maebayashi").

Claims 7-12 and 25-28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Goldberg in view of U.S. Patent No. 6,074,434 to Cole et al. ("Cole").

Claims 37-41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Goldberg in view of U.S. Patent No. 6,260,157 B1 to Schurecht et al. ("Schurecht").

To date, no Notice of Draftsperson's Patent Drawing Review has been received. Applicants respectfully request receipt of this document when it becomes available. Please note that the original drawings filed in the patent application are "formal" drawings.

35 U.S.C. § 102(b) Rejection

The rejection of claims 1-4, 13-17, 19-21, 30 and 31 under 35 U.S.C. § 102(b) as being anticipated by Goldberg, is respectfully traversed based on the following.

Goldberg discloses a microcomputer system in which Read-Only Memory (ROM) is used to store programs. The microcomputer system is configured with Random-Access Memory (RAM), and each ROM based program includes a test to determine if any ROM program is to be replaced by a RAM program. (Col. 1, lines 13-30).

The Office Action cites Goldberg as disclosing "reading a random access memory to determine a location of data," (citing col. 1, line 64 through col. 2, line 4). However, the cited passage merely states that a RAM-based program can be substituted for a ROM-based program. In order for the RAM-based program to be located, the ROM-based program includes a call to a ROM-located processing routine which searches a RAM-located data structure. If there exists a correspondence between information passed on the call to the processing routine and certain elements of the data structure, a RAM-based program is substituted for the ROM-based program. (Col. 1, lines 61-68). Thus, in Goldberg, the replacement program is stored in the RAM.

The Office Action further cites Goldberg as disclosing that RAM can be volatile or nonvolatile. However, RAM (whether volatile or nonvolatile) can be distinguished from nonvolatile reprogrammable memory in that while data stored in RAM can be updated simply by writing to the RAM, a nonvolatile reprogrammable memory must be reprogrammed.

Claim 1 recites, *inter alia*,

> reading a random access memory to determine a location of said data;
>
> reading a nonvolatile reprogrammable memory, if said data is located in said nonvolatile reprogrammable memory;
>
> reading a read only memory, if said data is not located in said nonvolatile reprogramable memory; and

Thus, while Goldberg discloses that the replacement program is stored in RAM, and that a program in the ROM searches the RAM for the replacement program, claim 1 requires that the RAM be read to determine the location of the data, which is in either the nonvolatile reprogrammable memory or the read only memory. Once the location is known, the data can be retrieved from the nonvolatile reprogrammable memory or the read only memory (ROM). Thus, claim 1 is considered to be allowable over Goldberg. Claims 2-4 depend from and contain all the limitations of claim 1. Thus, claims 2-4 are allowable for at least the same reasons that claim 1 is allowable.

Claim 13 recites, *inter alia*,

> creating a read only memory containing a first set of software modules;
> storing in a nonvolatile reprogrammable memory a second set of software modules, at least one module in said second set corresponding to a module in said first set;
> storing in a random access memory location information corresponding to said modules in said first and second sets;

As discussed above, Goldberg discloses that a replacement program is stored in RAM and that a program in the ROM searches the RAM for the replacement program. In contrast, claim 13 requires that the first set of software modules be contained in a ROM, the second set of software modules be stored in a nonvolatile reprogrammable memory, and location information be stored in a RAM. Thus, claim 13 is considered to be allowable over Goldberg. Claims 14-17 depend from and contain all the limitations of claim 13. Thus, claims 14-17 are allowable for at least the same reasons that claim 13 is allowable.

Claim 19 recites, *inter alia*,

> a read only memory for storing fixed data;
> a nonvolatile reprogrammable memory for storing updated data corresponding to said fixed data;
> a random access memory for storing location data corresponding to said updated data; and

As discussed above, Goldberg discloses that a replacement program is stored in RAM and that a program in the ROM searches the RAM for the replacement program. In contrast, claim 19 requires that fixed data be stored in a ROM, updated data be stored in a nonvolatile reprogrammable memory, and location data be stored in a RAM. Thus, claim 19 is considered to be allowable over Goldberg. Claims 20 and 21 depend from and contain all the limitations of claim 19. Thus, claims 20 and 21 are allowable for at least the same reasons that claim 19 is allowable.

Claim 30 recites, *inter alia*,

> a mask read only memory for storing fixed data;
> a random access memory for storing a location of said fixed data; and ...
> a second memory subsystem, including:
> a nonvolatile reprogrammable memory for storing updated data, wherein a location of said updated data is stored in said random access memory; and

As discussed above, Goldberg discloses that a replacement program is stored in RAM and that a program in the ROM searches the RAM for the replacement program. In contrast, claim 30 requires that fixed data be stored in a ROM, updated data be stored in a nonvolatile reprogrammable memory, and a location of the fixed data and the updated data be stored in a RAM. Thus, claim 30 is considered to be allowable over Goldberg. Claim 31 depends from and contains all the limitations of claim 30. Thus, claim 31 is allowable for at least the same reasons that claim 30 is allowable.

Accordingly, it is respectfully requested that the rejection of claims 1-4, 13-17, 19-21, 30 and 31 under 35 U.S.C. § 102(b) as being anticipated by Goldberg, be reconsidered and withdrawn.

35 U.S.C. § 103(a) Rejections

The rejection of claims 5, 6, 18, 22-24 and 32-36 under 35 U.S.C. § 103(a), as being unpatentable over Goldberg in view of Maebayashi, is respectfully traversed based on the following.

As discussed above, Goldberg discloses that a replacement program is stored in RAM and that a program in the ROM searches the RAM for the replacement program. Once located, the RAM-based program is substituted for the ROM-based program.

Maebayashi discloses a firmware modification system which includes a fixed program data storing unit for storing fixed program data and a modification data storing

unit for storing modification data. (Abstract). "The fixed program data is read from the fixed program data storing unit 5 by the fixed program data loading unit 7, and is loaded in the working program holding unit 4 ... and then the data of the program held in the working program holding unit 4, is modified with the modification data stored in the modification data storing unit 11, by the working program modifying unit 8. (Col. 4, lines 54-61). More specifically, the system of Maebayashi has "a first routine for reading the program data of version zero from the ROM 53 ... to load the program data in the RAM 52; and a second routine for modifying the data of the program held in the RAM 52, with the modification data held in the EEPROM 54 ...." (Col. 7, lines 18-25).

Claims 5 and 6 depend from and contain all the limitations of claim 1. As discussed above, claim 1 requires that the RAM be read to determine the location of the data, which is in either the nonvolatile reprogrammable memory or the read only memory. Once the location is known, the data can be retrieved from the nonvolatile reprogrammable memory or the ROM. Thus, the pertinent data need only be read from one of the nonvolatile reprogrammable memory or ROM. In contrast to claim 1 (and dependent claims 5-6), Maebayashi discloses that program data is read from the ROM and stored in RAM. Once stored in RAM, the program data is then modified by the modification data read from the EEPROM. Further, as discussed above, Goldberg discloses that the replacement program is stored in RAM. Thus, neither Maebayashi nor Goldberg, individually or in combination, discloses all the features of claims 5-6. Therefore, claims 5-6 are considered to be allowable over Goldberg and Maebayashi.

Claim 18 depends from and contains all the limitations of claim 13. As discussed above, claim 13 requires that the first set of software modules be contained in a ROM, the second set of software modules be stored in a nonvolatile reprogrammable memory, and location information be stored in a RAM. In contrast to claim 13 (and dependent claim 18), neither Maebayashi nor Goldberg discloses that location information corresponding to the modules (which are stored in ROM or nonvolatile reprogrammable memory) is stored in RAM. Thus, claim 18 is considered to be allowable over Goldberg and Maebayashi.

Claims 22-24 depend from and contain all the limitations of claim 19. As discussed above, claim 19 requires that fixed data be stored in a ROM, updated data be stored in a nonvolatile reprogrammable memory, and location data be stored in a RAM. Claim 19 further requires that a controller adapted to provide updated data if it is available, and to provide fixed data if updated data is not available. Thus, only one set of data is provided. In contrast to claim 19 (and dependent claims 22-24), Maebayashi discloses that program data is read from the ROM and stored in RAM. Once stored in RAM, the program data is then modified by the modification data from the EEPROM. Further, as discussed above, Goldberg discloses that the replacement program is stored in RAM. Thus, neither Maebayashi nor Goldberg, individually or in combination, discloses all the features of claims 22-24. Therefore, claims 22-24 are considered to be allowable over Goldberg and Maebayashi.

Claims 32-35 depend from and contain all the limitations of claim 30. As discussed above, claim 30 requires that fixed data be stored in a ROM, updated data be stored in a nonvolatile reprogrammable memory, and location data be stored in a RAM. Claim 30 further requires that a first microprocessor be adapted to read the RAM to determine a location of the data. The first microprocessor can then communicate with a second microprocessor to receive updated data, or to read the fixed data from the ROM. Thus, only one of updated data or fixed data need be read. In contrast to claim 30 (and dependent claims 32-35), Maebayashi discloses that program data is read from the ROM and stored in RAM. Once stored in RAM, the program data is then modified by the modification data from the EEPROM. Further, as discussed above, Goldberg discloses that the replacement program is stored in RAM. Thus, neither Maebayashi nor Goldberg, individually or in combination, discloses all the features of claims 32-35. Therefore, claims 32-35 are considered to be allowable over Goldberg and Maebayashi.

Claim 36 recites,

> A communication system, comprising:
> a base subsystem, including:

a nonvolatile reprogrammable memory for storing updated data;
a base microprocessor for controlling a flow of said updated data to and from said nonvolatile reprogrammable memory;
a communication subsystem, including:
a mask read only memory for storing fixed data;
a random access memory for storing locations of said fixed and updated data;
a communications microprocessor for processing said fixed and updated data;
a display for displaying at least one of said fixed and updated data;
a data entry device for modifying said at least one of said fixed and updated data thus displayed; and
a data link for transporting said updated data between said communication subsystem and said base subsystem;
wherein said communications microprocessor is adapted to read said random access memory to determine a location of a desired one of said fixed and updated data, said communications microprocessor being adapted to communicate with said base microprocessor via said data link to receive said updated data if the desired data is said updated data and to read said mask read only memory if said desired data is said fixed data.

Thus, claim 36 requires that the communications microprocessor be adapted to read the RAM to determine a location of the data. The communications microprocessor can then communicate with a base microprocessor to receive updated data, or to read the fixed data from the ROM. Thus, only one of updated data or fixed data need be read. In contrast to claim 36, Maebayashi discloses that program data is read from the ROM and stored in RAM. Once stored in RAM, the program data is then modified by the modification data from the EEPROM. Further, as discussed above, Goldberg discloses that the replacement program is stored in RAM. Thus, neither Maebayashi nor Goldberg, individually or in combination, discloses all the features of claim 36. Therefore, claim 36 is considered to be allowable over Goldberg and Maebayashi.

Accordingly, it is respectfully requested that the rejection of claims 5, 6, 18, 22-24 and 32-36 under 35 U.S.C. § 103(a) as being unpatentable over Goldberg in view of Maebayashi, be reconsidered and withdrawn.

The rejection of claims 7-12 and 25-28 under 35 U.S.C. § 103(a), as being unpatentable over Goldberg in view of Cole, is respectfully traversed based on the following.

As discussed above, Goldberg discloses that a replacement program is stored in RAM and that a program in the ROM searches the RAM for the replacement program. Once located, the RAM-based program is substituted for the ROM-based program.

Cole discloses a server computer that identifies code updates which are consistent with basic system characteristics of the client computer. Then, the server computer sends to the client computer one or more "recognizer" programs which determines whether the client computer has a version other than a current version of the consistent code updates. The client sends the results to the server computer which generates a list of code updates which are consistent with the basic system characteristics and represent programs that exist on the client computer for which an update would be appropriate. The server computer may send the list or information about the list to the client computer. A user at the client computer may select from the list and send the selections to the server computer. In response, the server computer sends addresses of the selected code updates to the client computer and the client computer downloads the selected code updates from a server computer. (Col. 2, lines 1-18).

Claim 7 recites, *inter alia*,

> reading a random access memory to select a desired version of said data from among a plurality of versions of said data stored in a nonvolatile reprogrammable memory and a read only memory;
> reading said desired version from said nonvolatile reprogrammable memory or said read only memory in accordance with the selection; and

Thus, claim 7 requires that the desired version of data be stored in either the nonvolatile reprogrammable memory or the read only memory. Goldberg discloses that the replacement program is stored in RAM, while Cole discloses that the code update is

downloaded from a server computer. Thus, neither Goldberg nor Cole, individually or in combination, discloses all the features of claim 7. Therefore, claim 7 is considered to be allowable over Goldberg and Cole. Claims 8-12 depend from and contain all the limitations of claim 7. Thus, claims 8-12 are allowable for at least the same reasons that claim 7 is allowable.

Claim 25 recites, *inter alia*,

> a random access memory for storing location data corresponding to a desired version of data from among a plurality of versions of said data stored in said nonvolatile reprogrammable memory and said read only memory; and

Thus, claim 25 requires that the desired version of data be stored in either the nonvolatile reprogrammable memory or the read only memory. Goldberg discloses that the replacement program is stored in RAM, while Cole discloses that the code update is downloaded from a server computer. Thus, neither Goldberg nor Cole, individually or in combination, discloses all the features of claim 25. Therefore, claim 25 is considered to be allowable over Goldberg and Cole. Claims 26-28 depend from and contain all the limitations of claim 25. Thus, claims 26-28 are allowable for at least the same reasons that claim 25 is allowable.

Claim 29 was not specifically rejected by the Office Action. Claim 29 depends from and contain all the limitations of claim 25 and is considered to allowable for at least the same reasons that claim 25 is allowable.

Accordingly, it is respectfully requested that the rejection of claims 7-12 and 25-28 under 35 U.S.C. § 103(a) as being unpatentable over Goldberg in view of Cole, be reconsidered and withdrawn.

The rejection of claims 37-41 under 35 U.S.C. § 103(a), as being unpatentable over Goldberg in view of Schurecht, is respectfully traversed based on the following.

As discussed above, Goldberg discloses that a replacement program is stored in RAM and that a program in the ROM searches the RAM for the replacement program. Once located, the RAM-based program is substituted for the ROM-based program.

Schurecht discloses a processing device having a ROM capable of being patched. The device includes a ROM that stores program instructions and at least one jump instruction, a patch program, a RAM memory capable of storing the patch program, and a patch vector table that indicates the location of the patch program. A processor executes the program instructions in the program ROM and uses the patch vector table to execute the patch program when the processor reaches one of the jump instructions. The processor jumps directly to the RAM to execute the patch program. If no patch program is to be executed at the jump, the processor can jump directly to another address within the ROM without jumping into the RAM. (Col. 3, lines 13-29).

Claims 37 and 38 depend from and contain all the limitations of claim 36. Claim 36 requires that the updated data be stored in a nonvolatile reprogrammable memory. Goldberg discloses that the replacement program is stored in RAM. Similarly, Schurecht discloses that the patch program is stored in program RAM. Thus, claim 36 and its dependent claims, claims 37 and 38, are considered to be allowable over Goldberg and Schurecht.

Claim 39 recites, *inter alia*,

> a nonvolatile reprogrammable memory for storing updated data; ...
> a cordless handset, including:
> a mask read only memory for storing fixed data;
> a random access memory for storing locations of said fixed and updated data;

Thus, claim 39 requires that the updated data be stored in a nonvolatile reprogrammable memory. Goldberg discloses that the replacement program is stored in RAM. Similarly, Schurecht discloses that the patch program is stored in program RAM.

Thus, claim 39 is considered to be allowable over Goldberg and Schurecht. Claims 40 and 41 depend from and contain all the limitations of claim 39. Thus, claims 40 and 41 are allowable for at least the same reasons that claim 39 is allowable.

Accordingly, it is respectfully requested that the rejection of claims 37-41 under 35 U.S.C. § 103(a) as being unpatentable over Goldberg in view of Schurecht, be reconsidered and withdrawn.

CONCLUSION

Wherefore, in view of the foregoing Remarks, this application is considered to be in condition for allowance, and an early reconsideration and a Notice of Allowance are earnestly solicited.

This Response does not increase the number of independent claims, does not increase the total number of claims, and does not present any multiple dependency claims. Accordingly, no fee based on the number or type of claims is currently due. However, if a fee, other than the issue fee, is due, please charge this fee to Sidley Austin Brown & Wood LLP's Deposit Account No. 18-1260.

Any fee required by this document other than the issue fee, and not submitted herewith should be charged to Sidley Austin Brown & Wood LLP's Deposit Account No. 18-1260. Any refund should be credited to the same account.

If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed.

Any other fee required for such Petition for Extension of Time and any other fee required by this document pursuant to 37 C.F.R. §§ 1.16 and 1.17, other than the issue fee,

and not submitted herewith should be charged to Sidley Austin Brown & Wood LLP's Deposit Account No. 18-1260. Any refund should be credited to the same account.

Respectfully submitted,

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